

Appl. No. 10/695,365
Amdt. dated February 23, 2007
Reply to Office action of September 25, 2006

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Claim Amendments

This listing of the claims will replace all prior versions, and listings, of claims in the application:

Claim 1 (currently amended): An apparatus for controlling a temperature of a printing plate in an external drum exposer having an exposure drum configured as a cylinder for holding the printing plate, the apparatus comprising:

an internal pipe having a longitudinal axis disposed coaxially with an axis of the exposure drum; and

at least one rotary lead-through fluidically communicating with said internal pipe for feeding a temperature-controlled liquid directly into and out of said internal pipe such that a flow of the temperature-controlled liquid is confined within said internal pipe; and

webs connected to said internal pipe, said webs configured for connecting said internal pipe to the cylinder for effecting heat transfer from the temperature-controlled liquid to the cylinder via said internal pipe and said webs, thereby achieving a defined temperature of the printing plate.

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Claim 2 (cancelled).

Claim 3 (currently amended): The apparatus according to claim [[2]] 1, wherein the cylinder, said internal pipe and said webs are fabricated from a thermally conductive material.

Claim 4 (currently amended): The apparatus according to claim [[2]] 1, wherein the cylinder, said internal pipe and said webs are fabricated from an extruded part.

Claim 5 (original): The apparatus according to claim 1, wherein said rotary lead-through is disposed at a first end of the exposure drum with which the temperature-controlled liquid is led into said internal pipe; and

further comprising a further rotary lead-through disposed at a second end of the exposure drum with which the temperature-controlled liquid is led out of said internal pipe.

Claim 6 (original): The apparatus according to claim 1, wherein said rotary lead-through is a two-way rotary lead-through disposed at one end of the exposure drum, said two-way rotary lead-through leading the temperature-controlled liquid into and out of said internal pipe.

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Claim 7 (original): The apparatus according to claim 1,
further comprising a temperature control unit disposed in a
path of the temperature-controlled liquid for keeping the
temperature-controlled liquid at a constant temperature.

Claim 8 (original): The apparatus according to claim 1,
wherein the temperature-controlled liquid is water.

Claim 9 (original): The apparatus according to claim 8,
wherein the temperature-controlled liquid further contains at
least one of a corrosion-prevention additive and an antifreeze
additive.

Claim 10 (original): The apparatus according to claim 3,
wherein said thermally conductive material is aluminum.

Claim 11 (cancelled).

Claim 12 (currently amended): An exposer for controlling a
temperature of a printing plate, comprising:

an exposure head for exposing the printing plate;

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an exposure drum configured as a cylinder for holding the printing plate and having an axis;

an internal pipe having a longitudinal axis disposed coaxially with said axis of said exposure drum; and

at least one rotary lead-through fluidically communicating with said internal pipe for feeding a temperature-controlled liquid directly into and out of said internal pipe such that a flow of the temperature-controlled liquid is confined within said internal pipe; and

webs connected to said internal pipe, said webs connecting said internal pipe to said cylinder for effecting heat transfer from the temperature-controlled liquid to said cylinder via said internal pipe and said webs, thereby achieving a defined temperature of the printing plate.

Claim 13 (cancelled).

Claim 14 (currently amended): An exposure drum for controlling a temperature of a printing plate, comprising:

a cylindrical body for holding the printing plate and having an axis;

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an internal pipe having a longitudinal axis disposed coaxially with said axis of said cylindrical body; and

at least one rotary lead-through fluidically communicating with said internal pipe for feeding a temperature-controlled liquid directly into and out of said internal pipe such that a flow of the temperature-controlled liquid is confined within said internal pipe; and

webs connected to said internal pipe, said webs connecting said internal pipe to said cylindrical body for effecting heat transfer from the temperature-controlled liquid to said cylindrical body via said internal pipe and said webs, thereby achieving a defined temperature of the printing plate.

Claim 15 (previously presented): The apparatus according to claim 1, wherein the defined temperature of the printing plate is maintained irrespective of an ambient temperature.

Claim 16 (currently amended): The apparatus according to claim [2] 1, wherein said webs are longitudinal webs running along the axis of the exposure drum over substantially an entire length of the exposure drum.